

Attorney Docket No. : 5762.200-US
Application Serial No.: 09/577,694
Filed: May 22, 2000
Inventors: Sorensen et al.
Via Facsimile : 703-872-9306

In the Claims

Please amend the claims as follows:

Claims (1-62) – Cancelled

63. (Currently Amended) A stopper comprising an injection-mouldable material made of a butyl based rubber and a polyolefin wherein the polyolefin is not an elastomer, and wherein the butyl based rubber is present in an amount of 70-90 % by weight and the polyolefin is present in an amount of 30-10 % by weight, and wherein the combination of the butyl based rubber and the polyolefin results in a reduced leakage of substances compared to the leakage of substances from a stopper made from a butyl based rubber alone and wherein the stopper comprises 10 % by weight or less of fillers and 1% by weight or less of additives.

64. (Previously Presented) The stopper according to claim 63 having a hardness of 40-80 Shore

65. (Previously Presented) The stopper according to the claim 63 having a hardness of 45-75 Shore A.

66. (Previously Presented). The stopper according claim 63 having a hardness of 65-75 Shore A.

67. (Previously Presented) The stopper according to claim 63 for a medical container, comprising a blend of 13-25 % by weight of a polyolefin and 75-87 % by weight of a butyl based rubber.

68. (Previously Presented) The stopper according to claim 63, wherein the polyolefin is selected from the group of polyolefines consisting of polypropylene and polyethylene.

69. (Previously Presented New) The stopper claim 63, wherein the butyl based rubber is halogenated butyl.

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70. (Previously Presented) The stopper claim 63, wherein the butyl based rubber is a bromobutyl.

71. (Previously Presented) The stopper according to claim 63, wherein the butyl based rubber is at least partially cross-linked.

72. (Previously Presented) The stopper according to claim 63 wherein the stopper has a substantially circular cross-section.

73. (Currently Amended) A medical container for storing a liquid medicament, comprising a distal and a proximal end portion and at least one wall defining an interior space for such liquid medicament, wherein one of the end portions comprises a stopper comprising: an injection-mouldable material made of a butyl based rubber and a polyolefin wherein the polyolefin is not an elastomer, and wherein the butyl based rubber is present in an amount of 70-90 % by weight and the polyolefin is present in an amount of 30-10 % by weight, and wherein the combination of the butyl based rubber and the polyolefin results in a reduced leakage of substances compared to the leakage of substances from a stopper made from a butyl based rubber alone and wherein the stopper comprises less than 10% by weight of fillers and less than 1% by weight additives.

74. (Previously Presented) The medical container according to claim 72, wherein the at least one wall is non-flexible.

75. (Currently Amended) A process of producing a stopper as defined in claim 1, comprising the steps of:

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- heating a butyl based rubber present in an amount of 70-90 % by weight, and melting a polyolefin present in an amount of 30-10 % by weight, wherein the polyolefin is non-elastomeric, and wherein fillers are added at less than 10% by weight and additives are added at less than 1%
- homogenising the stopper material,
- moulding the stopper material by injection moulding and
- obtaining the stopper.

76. (Previously Presented) A process of producing a stopper according to claim 74, wherein the stopper is moulded on to a rod by the means of two-component injection moulding.

77. (New) A stopper comprising an injection-mouldable material made of a butyl based rubber and a polyolefin wherein the polyolefin is not an elastomer, and wherein the butyl based rubber is present in an amount of 70-90 % by weight and wherein additives are optionally present in an amount not exceeding 1% by weight and fillers are optionally present in an amount less than 10% by weight and wherein the balance of the material is polyolefin, and wherein the combination of the butyl based rubber and the polyolefin results in a reduced leakage of substances compared to the leakage of substances from a stopper made from a butyl based rubber alone.

78. (New) The stopper according to claim 77 having a hardness of 40-80 Shore A.

79. (New) The stopper according to the claim 77 having a hardness of 65-75 Shore A.

80. (New) The stopper according to claim 77 for a medical container, comprising a blend of 13-25 % by weight of a polyolefin and 75-87 % by weight of a butyl based rubber.

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81. (New) The stopper according to claim 77, wherein the polyolefin is selected from the group of polyolefines consisting of polypropylene and polyethylene.
82. (New) The stopper claim 77, wherein the butyl based rubber is halogenated butyl.
83. (New) The stopper claim 77, wherein the butyl based rubber is a bromobutyl.
84. (New) The stopper according to claim 77, wherein the butyl based rubber is at least partially cross-linked.
85. (New) The stopper according to claim 77 wherein the stopper has a substantially circular cross-section.